

**数学与系统科学研究院**

**计算数学所学术报告**

**报告人: Prof. Guo-Wei Wei**

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Michigan State University)**

**报告题目: Mathematical modeling  
with geometric evolution equations  
-- from images, surfaces to  
multiscale analysis**

**邀请人: 卢本卓副研究员**

**报告时间: 2009年5月27日(周三)**

**下午 3:00—4:00**

**报告地点: 科技综合楼三层 311**

**计算数学所报告厅**

## Abstract:

**We report high order geometric evolution equations and new geometric flow equations for the analysis of digital images and theoretical modeling biomolecular surfaces. We introduce a family of high-order geometric partial differential equations (PDEs) to enhance the biomedical images. We introduce coupled PDEs for edge detection and segmentation of texture images.**

**Geometric PDEs are introduced for biomolecular surface construction and evolution. We propose a differential geometry based multiscale analysis of biological systems, including proteins and viruses.**

**欢迎大家参加！**